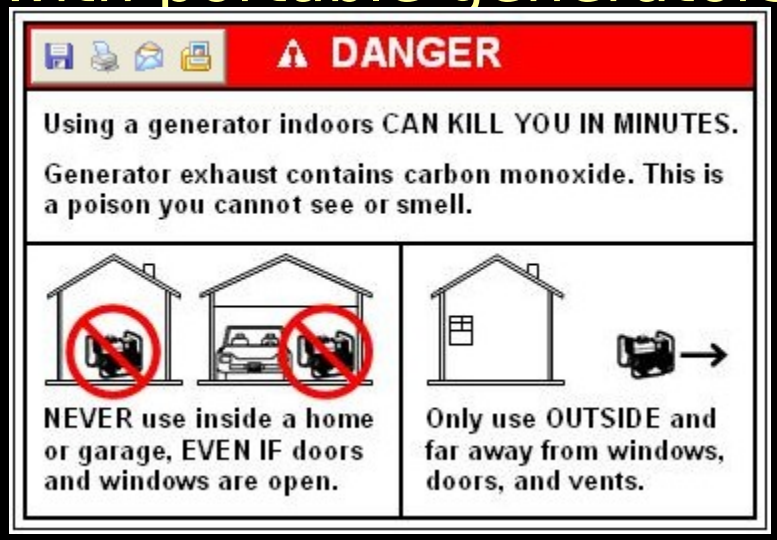
Generator Safety

Generator hazards

The primary hazards to avoid when using a generator are carbon monoxide (CO) poisoning from the engine exhaust, electric shock or electrocution, and fire. Noise can also be hazardous. Every year, people die in incidents related to portable generator use.

Carbon monoxide

- In 2005, the Consumer Product Safety Commission received reports of at least 64 people who died from carbon monoxide (CO) poisoning associated with portable generators.


DANGER
Using a generator indoors CAN KILL YOU IN MINUTES.
Generator exhaust contains carbon monoxide. This is a poison you cannot see or smell.
NEVER use inside a home or garage, EVEN IF doors and windows are open.
Only use OUTSIDE and far away from windows, doors, and vents.

Carbon monoxide

Portable gas generators, often used by consumers to restore power to their homes and businesses in the aftermath of a storm, produce high levels of odorless, poisonous CO. CPSC warns consumers that generators should be used outdoors only, far from doors, windows, and vents that could allow CO to come indoors.

Selecting a generator

- Buy a generator that is rated for the amount of power that you think you will need. Look at the labels on lighting, appliances, and equipment you plan to connect to the generator to determine the amount of power that will be needed to operate the equipment.
- Choose a generator that produces more power than will be drawn by the combination of lighting, appliances, and equipment you plan to connect to the generator including the initial surge when it is turned on.

Selecting a generator

- Get the right-sized generator for your needs. Selecting the proper wattage of an electric generator involves more than simply adding up the wattage of the lights and appliances you want to power.

- Electric motors require extra power to start up. A sump pump, for example, may need more than 1,200 watts of power to start up, but only 800 or so to run afterwards. A furnace fan may need over 2,000 watts to start running, then drop to half that level.

Using a generator

- To prevent electrical shock, make sure your generator is properly grounded.
- Consult your manufacturer's manual for correct grounding procedures.
- The manual will most likely tell you to attach a #8 copper wire to: a metal water pipe that travels at least 10 feet into the ground, hook to a building ground, or drive a metal rod 8 feet into the earth, etc. Make sure you use a rod that is permitted for grounding. There are minimum sizes and material that will give you the proper grounding.

Using a generator

- Under no circumstances should portable generators be used indoors, including inside a garage, carport, basement, crawlspace, or other enclosed or partially-enclosed area, even with ventilation. Opening doors and windows or using fans will not prevent CO buildup in the home.
- Plug appliances directly into the generator. Or, use a heavy duty, outdoor-rated extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.

Using a generator

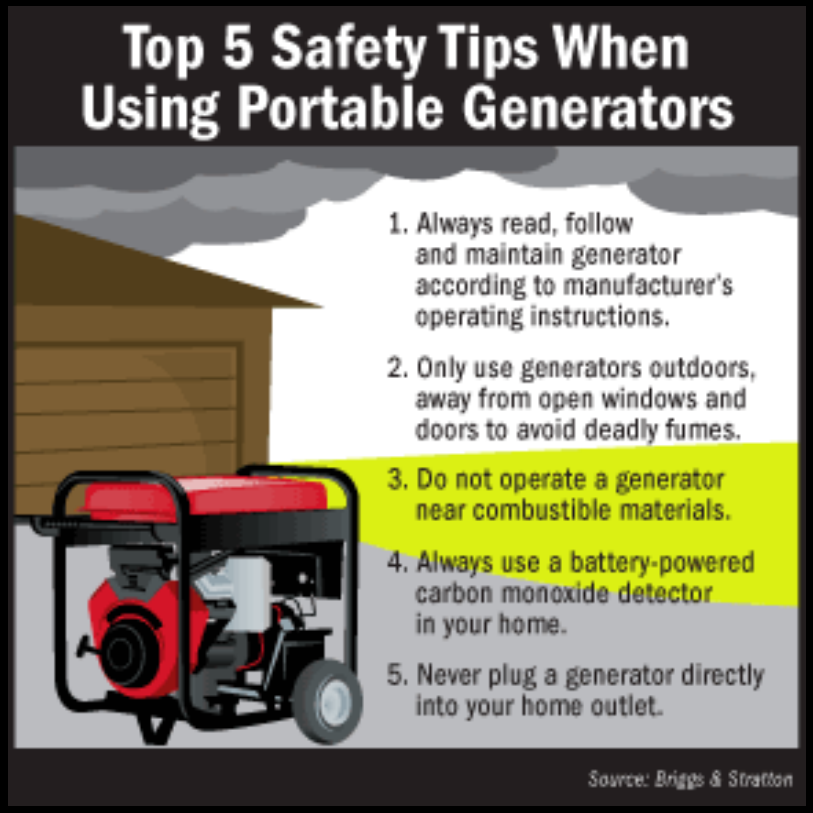
- Never try to power the house wiring by plugging the generator into a wall outlet, a practice known as “backfeeding.” This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household protection devices.

- The only recommended method to connect a generator to house wiring is by having a qualified electrician install a power transfer switch. This switch must be installed in accordance with the National Electrical Code (NEC),

Using a generator

- Be sure to turn the generator off and let it cool down before refueling. Gasoline spilled on hot engine parts could ignite.
- Store fuel for the generator in an approved safety can. Use the type of fuel recommended in the instructions or on the label on the generator. Local laws may restrict the amount of fuel you may store, or the storage location.

Generator safety tips


Top 5 Safety Tips When Using Portable Generators
1. Always read, follow and maintain generator according to manufacturer's operating instructions.
2. Only use generators outdoors, away from open windows and doors to avoid deadly fumes.
3. Do not operate a generator near combustible materials.
4. Always use a battery-powered carbon monoxide detector in your home.
5. Never plug a generator directly into your home outlet.
Source: Briggs & Stratton